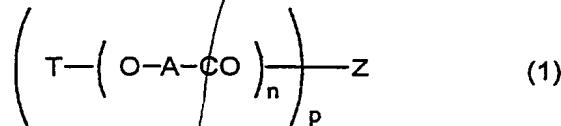


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CLAIMS

1. A drop on demand ink jet printing ink comprising a pigment, a substantially non-aqueous medium and a dispersant of formula 1



wherein

T is hydrogen or a polymerisation terminating group;

A is C₈₋₂₀-linear alkylene;

Z is the residue of a polyamine or polyimine wherein the number-average molecular weight is from 5,000 to 100,000;

n is from 2 to 10;

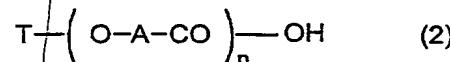
p is not less than 2; and

the weight ratio of $(T-(\text{O}-\text{A}-\text{CO}))_n \rightarrow_p$ to Z is from 5:1 to 20:1.

Sub
a)

2. A printing ink as claimed in claim 1 wherein the weight ratio of $(T-(\text{O}-\text{A}-\text{CO}))_n \rightarrow_p$ to Z is from 9:1 to 13:1.

3. A printing ink as claimed in either claim 1 or claim 2 wherein the dispersant is obtainable by reacting the polyamine or polyimine with an end-capped polyoxyalkylenecarbonyl acid or polyoxyalkenylcarbonyl acid (TPOAC acid) of formula 2:



wherein T, A and n are as defined in claim 1.

4. A printing ink as claimed in claim 3 wherein the TPOAC acid is derived from 12-hydroxystearic acid.

5. A printing ink as claimed in either claim 3 or claim 4 wherein the number-average molecular weight of the TPOAC acid is from 800 to 2000.

6. A printing ink as claimed in any one of the preceding claims wherein Z is the residue of polyethylenimine.

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7. A printing ink as claimed in any one of claims 1 to 6 wherein the non-aqueous medium is an aromatic or aliphatic hydrocarbon or mixtures thereof.

8. A printing ink as claimed in claim 7 which additionally comprises a C₁₀₋₃₀-aliphatic fatty alcohol.

9. A printing ink as claimed in any one of claims 1 to 8 wherein the non-aqueous medium has a solubility parameter of 7.0 MPa^{1/2} or less.

10. A printing ink as claimed in any one of claims 1 to 9 which additionally comprises a fluidising agent.

11. A printing ink as claimed in any one of claims 1 to 10 which additionally comprises a Receding Meniscus Velocity (RMV) modifier.

12. A printing ink as claimed in claim 11 where the RMV modifier is a linear phenolic polymer.

13. A printing ink according to any one of the preceding claims wherein the ink has a viscosity at 25°C of less than 50cP.

14. A process for printing an image on a substrate comprising applying thereto by means of a drop on demand ink jet printer a printing ink according to any one of the preceding claims.

15. A substrate printed with an ink according to any one of claims 1 to 13, or by means of the process according to claim 14.

16. An ink jet printer cartridge containing an ink according to any one of claims 1 to 13.

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